

Tagging Materials for Polymers, Methods, and Articles Made Thereby

Abstract

A polymer comprising a tagging material is provided wherein the tagging material comprises at least one organic fluorophore dye, or at least one inorganic fluorophore, or at least one organometallic fluorophore, or at least one semi-conducting luminescent nanoparticle, or combination thereof, wherein the tagging material has a temperature stability of at least about 350 °C. and is present in a sufficient quantity such that the tagging material is detectable via a spectrofluorometer at an excitation wavelength in a range between about 100 nanometers and about 1100 nanometers. Further embodiments of the present invention include a method for identifying a polymer and an article comprising a polymer wherein the polymer contains the aforementioned tagging material.